

Thesis

Advertising Appeal and Product Attitude:
Emotion based Advertising vs Argument Based Advertising

Author:

Kallirroï Dralliou

427526

**Erasmus
University
Rotterdam**



Supervisor:

Dr. Zhiying Jiang

Erasmus School of Economics, Erasmus University Rotterdam

Abstract

According to previous researches (Ruiz & Sicilia, 2004) advertising appeal plays a significant role in consumer learning. Advertising appeal can become more effective when matches consumer's information processing style. Despite the numerous researches conducted on the subject, most of them do not take into consideration, the cognitive characteristics of consumers and their effect on the different type of responses generated by different advertising appeal types. Taking this into account, the Need for Cognition model has been used in the theoretical model of this survey.

During this survey, respondents had to watch two ads that used different advertising appeal and rate the product viewed. Based on the SPSS results, advertising can affect consumer's product attitude. The two different advertising appeals show a significant difference and can generate different product attitudes. Different advertising appeals generated emotional and cognitive responses that have a mediating effect on product attitude. However, in this case Need for Cognition didn't seem to have an effect on product attitude. As a conclusion, it can be said that emotion based advertising has a strong effect on product attitude, although in this case the effect was negative.

Contents

Abstract.....	2
1 Introduction.....	5
1.1 Consumer learning and Advertising.....	5
1.2 Cognitive vs Emotional Responses.....	6
1.3 Advertising and Personality.....	6
1.4 Motivation.....	7
1.5 Methodology.....	7
1.6 Paper layout.....	7
2 Literature Review.....	8
2.1 Introduction.....	8
2.2 Elaboration Likelihood Model.....	8
2.3 Need for Cognition.....	11
3 Conceptual Framework.....	12
3.1 Type of Responses.....	13
3.2 Need for Cognition.....	13
3.3 Variables.....	15
4 Research Design & Method.....	17
4.1 Experimental Design.....	17
4.2 Stimuli.....	18
4.3 Pilot Test.....	18
4.4 Procedure.....	19
4.5 Sampling procedure.....	20
4.6 Measurements of Variables.....	21
5 Data Cleaning.....	22
5.1 Demographics.....	22

5.2 Descriptive statistics	22
5.3 Need for cognition	23
6 Results	24
6.1 Paired sample test	24
6.2 Ad appeal and Response Type	25
6.3 Ad appeal on emotional response	25
6.4 Ad appeal on Cognitive Response	25
6.5 Need for Cognition	26
6.6 Effect of NFC on product attitude (Emotional based Advertisement)	26
6.7 Effect of NFC on product attitude (Argument based Advertisement)	27
6.9 Ad appeal and NFC on Emotional Response	28
7 Product Attitude and Response Type	29
7.1 Product attitude and Emotional Response	29
7.2 Product attitude and Cognitive Response	29
7.3 Product attitude and advertisement appeal	32
7.4 Test of mediating effect	32
8 Conclusion	34
8.1 Ad appeal on Response Types	34
8.2 Need for cognition on Response Types	34
8.3 Brand Attitude	35
9 Discussion	36
9.1 Application	36
9.2 Limitations and Future Research	36
10 References	38
11 Appendix I	40
12 Appendix II	42

1 Introduction

One of the biggest challenges for a marketer is to understand what consumers think and why they act on certain ways. One theory is that the most effective way to create a successful product is to create the 'wow' effect to consumers.

But in order to create this exceptional product or even create the belief that the product is great, marketers need to understand consumers and how consumers learn and how they process the information a company delivers to them. To be successful, it is crucial that a company shares the appropriate information to the correct target audience.

1.1 Consumer learning and Advertising Appeal

Consumer learning is the process through which customers obtain information about the experience of the consumption of a product or a service. This knowledge would be used by companies as indicators for future purchases. Consumers can obtain this information through different channels such as advertising, experience, social learning etc. However, this research will focus on advertising as it is one of the most important contributors that affect brand equity (Aaker & Biel 1993) and the attitude towards an advertisement can affect the attitude of the consumer towards the product and the brand (Gardner 1985).

Advertising plays a very important role in the modern competitive business environment: The previous decades companies focused on price competition in order to increase their sales, a fact that reduced brand loyalty (Aaker & Biel 1993) and generated sacrifices on quality. It has become a common phenomenon, consumers to buy a product just because of a promotion without being engaged to a certain brand. As a result, nowadays more and more companies try to build a strong brand equity and one of the channels they use is advertising. As nowadays advertising is becoming more and more customized it is crucial for companies to target different consumer groups with the advertisement which is more suitable to them.

As a result, different ad types can lead to different responses from people with different personalities. Therefore, in this study, the main focus will be on the two different ad types that can affect the product attitude.

Advertising Types:

- Emotional based ads: Ads that aim at provoking emotions (happiness, fun, love etc.) to the viewers in order to involve them in the process of consumer learning.
- Argument based ads. Ads that use data and the functional characteristics of a product in order to make consumers aware of it.

One of the biggest challenges for a marketer is to understand what consumers think and why they act on a certain way. One of the first things that is taught in marketing classes is that the most effective way to create a successful product is to create the 'wow' effect to consumers.

But in order to create this exceptional product or even create the belief that the product is great, marketers need to understand consumers and how consumers learn and how they process the information a company shares with them. In order to be successful it is crucial that a company shares the appropriate information to the correct target audience.

1.2 Cognitive Responses vs Emotional Responses

As mentioned above each individual has its own way of learning and processing information. When consumers watch an advertisement, they receive information that they later evaluate. The way people evaluate the information they receive from different type of advertisements differs, due to diverse personalities among consumers. A number of people responds positively to an advertisement that offers a lot of technical information about the functional features of the product whereas other customers are more attracted from ads that address to their emotions. Actually, the response that an ad creates to the viewer and not the content of the ad itself is what mediates the acceptance of the ad (Wright 1973).

The first process through which customers obtain information while watching an ad is the cognitive process. Cognitive learning process is complex and includes all consumer mental activities. Through this process the consumers obtain information about a product (e.g. the brand name, the usage, the benefits it generates to its user etc.) that is going to be stored in their memory and will be used in a future decision making (Batkoska & Koseska 2012).

The Cognitive Process represents only one of the two ways that customers process information. That happens due to the fact that individuals also differ in the way they process emotional stimuli. When different personalities are exposed to equal levels of emotional stimuli, some of them respond with high levels of emotional intensity while others respond with low levels (Larsen & Diener 1987).

1.3 Advertising and Personality

Different personality characteristics can influence the way consumers process information during the consumer learning process. In this investigation Need for Cognition (NFC) will be used.

NFC has two levels: High NFC and Low NFC. Individuals with high NFC are people that tend to prefer to think more when it comes to processing an information. Therefore, these consumers show a higher level of appeal to ads that engage them into thinking and they tend to observe more when getting information about a consumption (Ruiz de Maya & Sicilia 2004). On the other hand, people with low NFC experience their emotions more intensively when exposed to the

emotional stimuli, need lower level of cognition and tend to be more affected by ads that can generate emotions.

1.4 Motivation

Taking into consideration all the above the purpose of this analysis is to try to find out if different advertising appeals (emotion based ads and argument based ads) can have a significant effect on the attitude of consumers towards a product. Also, this study will try to investigate if the personality characteristic need for cognition can have a significant mediating effect on the responses (emotional or cognitive) generated by the different ad appeals.

Based on the findings of this investigation it can be concluded which is the most effective advertising appeal according to different personalities that show different levels of NFC. Also, it will suggest if consumers can be divided by companies into groups based on their NFC and not based on gender, age etc. That means that people with high NFC will be targeted in a certain and different way than people with lower NFC.

1.5 Methodology

In this survey, the advertising appeals used are emotion based advertising versus argument based advertising. These advertising appeals lead to emotional and cognitive responses that shape the product attitude. Also, in this investigation is examining the role of need for cognition and how it can affect consumers' attitude towards a product.

Therefore, the research question is:

“How do advertising appeals- emotion based advertising vs argument based advertising-affect product attitude and if this effect is different among people with different need for cognition”

The data used have been obtained by respondents who participated voluntarily to the survey. All data have been analyzed in SPSS Statistics and the results are presented in the next chapters.

1.6 Paper layout

In chapter 2 the literature review is presented and analyzed in order to explain the findings of existing research related to the subject. Chapter 3 contains the conceptual framework, which is the part of the survey that presents all the variables of this survey. Chapter 4 presents the survey methodology, that includes how the survey was created and how the data were collected. Chapter 5 contains a simple data analysis of the variables. In chapter 6 and 7 the results of the survey are discussed and in chapters 8 and 9 there is a discussion of the results and limitation that were faced.

2 Literature Review

2.1 Introduction

In modern society advertising is considered one of the most powerful influences that can shape and affect opinions. As William Bernbach one of the founders of the Doyle Dayne Bernbach advertising agency mentioned “advertising is the art of persuasion”. In order to affect and persuade consumers, advertisers started focusing more on the ad appeal. According to several researches argumentation (Wright, 1973) and emotional appeal (Holbrook& O’Shaughnessycan, 1984) play a significant role to the way consumers respond to an advertisement. Different people show a great variety of reactions when exposed to different advertising appeals. A number of customers tend to enjoy more thinking while exposed to an ad whereas other customers have the tendency to experience more intensively their feelings and emotions (Aaker, 1986).

According to Chandy, Tellis, Macinnis, and Thaivanich (2001) there are two different advertising appeals that affect customer’s decision making: Rational and Emotional. Also, according to Ruiz& Sicilia (Ruiz & Sicilia, 2004) ad appeal can have an important impact on the ad effectiveness when it matches the consumer’s information processing style (cognitive or affective).

- Rational Appeal is a process that motivates the customer into thinking as it offers him plenty of information about a product or service (Churchill & Peter, 1998).
- Emotional Appeal is a process that tries to stimulate the psychological condition of the customer by creating emotions and feelings such as: happiness, joy, fear etc. (Hawkins, Best & Coney, 2003).

2.2 Elaboration Likelihood Model

Advertisement is a form of communication designed to affect consumers in order to make a certain purchase decisions. The main functions of advertising are to inform, persuade and influence potential consumers. One of the most accepted models of persuasion associated with advertising is the Elaboration Likelihood Model which is a dual process theory that uses two different ways of persuading (Petty, Cacioppo, 1986): The central route and the peripheral route. The route that is chosen is affected by the ability which is “the capability of critical evaluation”

and motivation which is defined as ‘the desire to process a message’ of the consumer. The Ability of an individual can be affected by cognitive resources (stress, distractions etc.) and also by “the level of familiarity with a subject”. On the other hand, the motivation can be influenced by the attitude of a person towards a message (Kunda, Ziva, 1990), by the personal relevance and need for cognition (Kruglanski, Van Lange, 2012).

- Central route requires a high level of information elaboration, so the individual needs to devote more time into thinking. During the central route the individual would pay attention to the facts (e.g. data) and use logic to evaluate the information. Central route is associated with high involvement that is the willingness of the individual to spend time and attention during the persuasion process. Central route persuasion starts working when the individual is motivated to listen to the message and be able to think about it. Under the central route persuasion process the individuals have cognitive responses and the decisions are made after deep thought. Also, central route processing leads to long lasting and resistant behavior.
- Peripheral route does not require a lot of thinking and focuses more on cues such as an emotional story, colors, music or a celebrity endorsement. The content of the advertisement (facts, data) is not important as the individual doesn’t need to examine any information and can rely on a general impression. Under the peripheral route persuasion process, consumers have emotional responses and make decisions mainly based on the emotions and feelings generated from the ad. That’s why peripheral route has more temporary results in the attitude of the consumers (Petty, Cacioppo, Schumann, 1983).

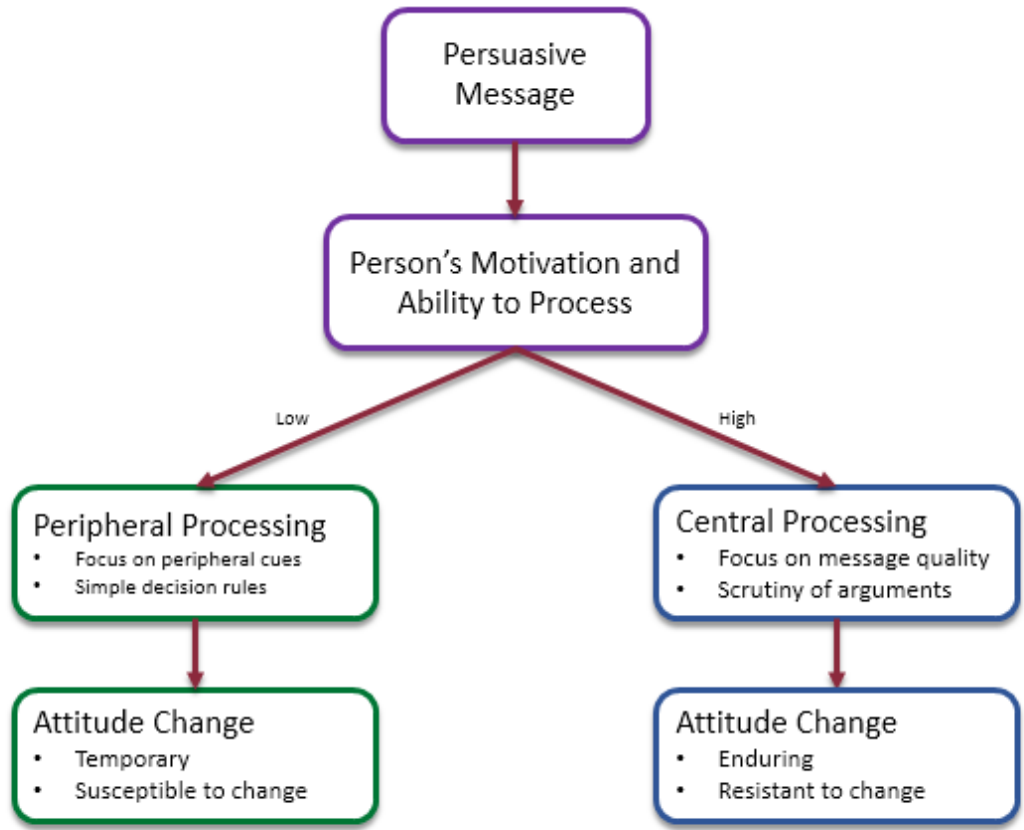


Figure 1

2.3 Need for Cognition

Psychology has played an important role in the development of advertising as usually a lot of psychological models are used by marketers and advertisers in order to understand their consumers and how personal characteristics can affect the response of people towards products.

One of these models is Need for cognition which is a model based on the Elaboration Likelihood Model theory. NFC refers to “a need to structure relevant situations in meaningful, integrated ways” (Cohen, Stotland, Wolfe, 1955). In other words, is the tendency of individuals to analyze and understand in a rational way the world around them. According to NFC scale, two groups can be defined: People with high need for cognition that are the people who enjoy thinking and argumentation, tend to evaluate and elaborate the information they receive and base their decisions in more complex cues. Hence, they will have to use central route processing when acquiring an information. The second group is people with lower need for cognition and can be described as persons that try to avoid thinking, are not affected by argumentation while watching an ad and make their evaluation based mostly on feelings and emotion that can be generated by the ad (Haugdvedt, Petty, Cacioppo, 1992). In this case people tend to learn by using the Peripheral route processing. Endorsements, ads’ atmosphere or stereotypes are elements that can affect people with lower need for cognition (Petty, Brinol, Loersch, & McCaslin, 2009).

The different levels of need for cognition can affect the way consumers’ message processing, however differences in need for cognition do not show differences in the cognitive possibilities (Cacioppo, 1996). When different people with different need for cognition are exposed to equal levels of emotional stimuli, some of them respond with high levels of emotional intensity while others respond with low levels (Larsen & Diener 1987). People that experience their emotions more intensively when exposed to the emotional stimuli need lower level of cognition and tend to be more affected by ads that can generate emotions such as: warmth, happiness, insecurity etc. Individuals with high need for cognition are more pleasant by ads that use argumentation, show a higher level of appeal to ads that engage them into thinking and they tend to observe more when getting information about a consumption (Ruiz de Maya & Sicilia 2004).

3 Conceptual Framework

Despite of extensive research on how different advertising appeals influence consumers for the purchasing decision, most of them do not include natural cognitive characteristics as one of the factors that can affect the way individuals form a brand attitude. The question is: what makes each appeal effective and how these ads persuade consumers. In other words, what is the psychological mechanism that arouses different responses from the consumers?

Taking this into consideration, this research aims to figure out how different individuals react to different appeals of advertisements and what effects can this have to product attitude. For this reason, NFC model will be used. NFC is “a personality variable that expresses the tendency of individuals to cognitive activities”. In particular I want to investigate to which extend different levels of need for cognition can moderate the responses of the customers towards an ad.

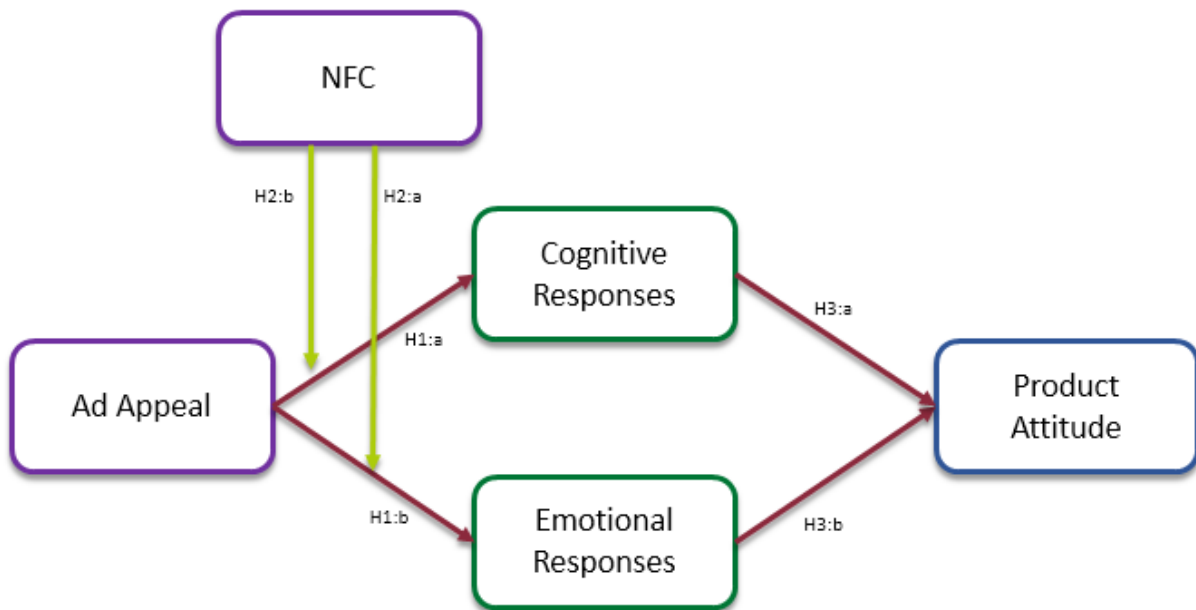


Figure 2 Conceptual Framework

3.1 Type of Responses

When exposed to an ad people can have cognitive and emotional responses. Cognitive responses are the thoughts that someone experiences while watching an ad whereas emotional responses are the feelings and emotions (Macinnis, Jaworski, 1989). Actually, the cognitive response that an ad creates to the viewer and not the content of the ad itself is what mediates the acceptance of the ad (Wright 1973). Although both responses exist while watching an advertisement the question is which one would be the more dominant each time?

As mentioned in the literature review, ads that use rational cues tend to generate more thinking to the consumers and provoke central route processes. Central route makes people think more and take into consideration facts and data. So, I conclude that ads that use rational appeal would generate more cognitive responses. At the same time, emotional- based ads tend to stimulate the psychological condition of the individuals, do not motivate them to think and provoke peripheral route processes. As a consequence, this survey suggests that emotional appeal based ads would generate more emotional responses.

H1a: Emotion based advertisements will arouse more affective response than cognitive response

H1b: Argument based advertisements will arouse more cognitive response than emotional responses

3.2 Need for Cognition

It can be predicted that people with higher need for cognition would be persuaded more easily by argument based ads that engage them into thinking and offer them clear information about a product. Also, people with lower need for cognition could be more affected by emotion- based advertisements as would be more attracted by the atmosphere of the ad, the emotions that could generate to the individuals, the endorser etc. (Dole, Sinatra 1998).

As mentioned before need for cognition can affect the persuasion route that an individual would follow in order to make a decision. It can be concluded, that people with high need for cognition that enjoy more thinking would be more likely to follow central route. On the other hand, people

that have lower need for cognition would prefer the peripheral route as it is a superficial way to make a decision that doesn't demand a lot of thought. Hence, it is proposed that NFC would have a moderating effect on the responds of the consumers to the ad.

H2a: Individuals with lower NFC will show more favorable attitude towards an emotional-based advertisement.

H2b: Individuals with higher NFC will show more favorable attitude towards an argument-based advertisement.

Advertising is one of the most important contributors that affect brand equity (Aaker & Biel 1993) and the attitude towards an advertisement can affect the attitude of the consumer towards a product and a brand (Gardner 1985). As a result, this analysis suggests that an individual that has a positive attitude towards an argument-based advertisement would have a positive attitude towards the product that is being communicated. At the same time an individual that would have a positive attitude towards emotion-based advertisement is likely to have a positive attitude to the product.

H3a: Positive attitude towards an emotion based advertisement will lead to positive product attitude.

H3b: Positive attitude towards an argument advertisement will lead to positive product attitude

H1	H1a	<i>Emotion based advertisements will generate more affective response than cognitive appeal</i>
	H1b	<i>Argument based advertisements will lead to more cognitive response than emotional appeal</i>
H2	H2a	<i>Individuals with lower NFC will show more favorable attitude towards an emotional-based advertisement.</i>
	H2b	<i>Individuals with higher NFC will show more favorable attitude towards an argument- based advertisement.</i>
H3	H3a	<i>Positive attitude towards an emotion based advertisement will lead to positive product attitude.</i>
	H3b	<i>Positive attitude towards an argument advertisement will lead to positive product attitude</i>

Table 1 Hypothesis

3.3 Variables

Product Attitude

In this particular investigation, the dependent variable is product attitude. Customers have a certain product attitude based on product familiarity and the associations they have related to that product or the brand. Therefore, the participants will be asked to rate the product before and after being exposed to the two different advertisements.

Advertising appeal

The independent variable is the advertising appeal. This paper aims to investigate the effect of two different types of advertising appeal: The rational and the emotional appeal. In other words, what is the product attitude of the consumers when they are exposed to different kind of advertisements?

Type of Responses

The mediating variable is the type of responses of the individuals when exposed to a certain ad appeal. The responses they can have can be either cognitive or emotional. In this investigation, it will be analyzed if the responses by different ad appeals can have an impact on product attitude. And kind of responses can be more powerful and influential on the consumers.

NFC Scale

As mentioned before, there are a lot of personal characteristics that affect the way people respond to ads. As a result, investigating only the effect of the ad appeal on the brand attitude is not enough. In this paper, it will be taken into consideration the moderating effect of Need for Cognition (NFC) on advertising appeal. In order to measure NFC, the NFC scale will be used. This scale is a questionnaire that includes 18 questions and was created by Cacioppo and Petty in 1982.

4 Research Design & Method

4.1 Experimental Design

This study examines the relationship between personality and different advertising appeals. Personality can be an important variable that affect the acceptance of an advertisement by the consumers. Different advertising appeals tend to affect different personalities and create different responses (cognitive or emotional) that can lead to certain attitudes towards a product.

During this within subject design survey, each respondent has been shown two different ads using diverse ad appeals-one using emotional, the second one using rational- and has to evaluate the product before being exposed to the stimuli and then evaluate again the product after being exposed to the stimuli. Also, participants have to answer a question about how they feel and what they think about the product after watching each ad. This question will be used to measure the intensity of emotional and cognitive responses. In the end, each of the participants has to fill in the Need for Cognition Scale.

4.2 Stimuli

For this study two different ads of the same product have been used. The first commercial is using emotional appeal that this ad is using emotions and specifically humor in order to influence the viewer. This ad doesn't present any of the features of the car and it doesn't give any information about the functional characteristics of the car. Whereas the second one uses rational appeal and shows data and practical information of the product in order to persuade the consumer.

The emotional based ad features the Toyota RAV4 and is the 'Toyota Rav4: So happy together' video. This video shows a couple who wake up in the morning and each of them tries to get first to the car. In order one of them to manage to get the car each of them set up traps to the other. This advertisement uses humor in order to pass its message to the consumers. The music that accompanies the video is 'so happy together'.



Figure 3 Emotion- based advertisement

The argument based ad is the '2014 Toyota Rav4 TV commercial'. This video shows the Toyota Rav4 model and demonstrates some of the functional characteristics of the product and gives some data such as: Cargo capacity, characteristics of the interior, design etc.



Figure 4 Argument based advertisement

4.3 Pilot Test

Before the survey, a pilot test took place in order to validate the assumptions and survey questions. During the pilot study 20 people between the ages of 24-32 were selected to respond to the survey questions in regard to the two advertisements-one using emotional appeal and one using rational appeal- and fill in the Need for Cognition Scale.

4.4 Procedure

During the online survey the participants had to respond to two advertisements-one using emotional and one rational appeal-of the same brand showing the same product. In the beginning the participants were asked a few demographic questions. In order to measure the before ad product attitude of the participants and the product attitude after been exposed to the stimuli, they were shown an image of the product and were asked to evaluate it. Then they were shown the emotion based ad and were asked to rate the product featured on the ad. After that they were shown the argument based ad and again they were asked to evaluate the product featured in the second ad. Also in the end, the participants were asked to answer the Need for Cognition questionnaire.

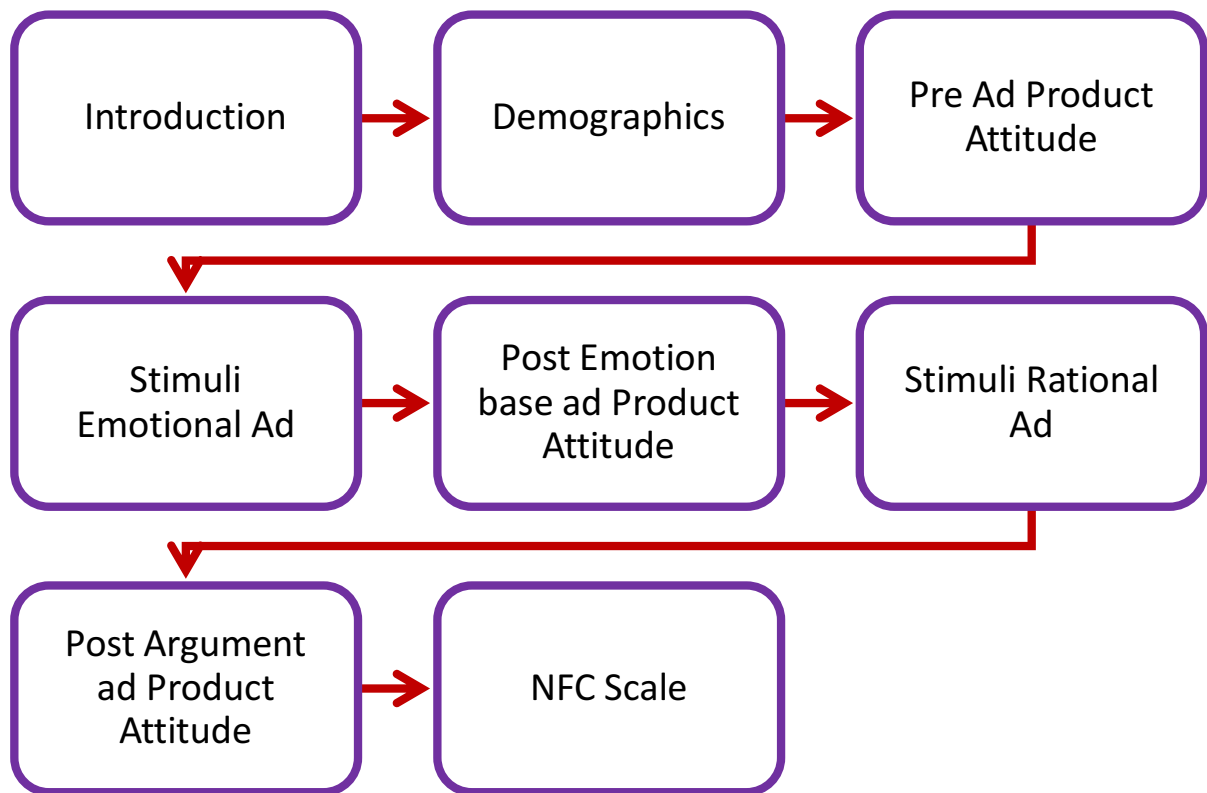


Figure 5

4.5 Sampling procedure

The survey is made with Google Forms which is a survey platform offered by Google. The experiment was distributed through the internet and social media (Facebook, Email etc.) from mid-April until mid-June. The participants of the survey had to complete a survey questionnaire containing 31 questions and see two ads. The survey consists of two parts:

1. The first 13 questions related to the product attitude.
2. The rest 18 questions that will be used to calculate the need for cognition.

4.6 Measurements of Variables

Name	Independent/ Dependent Variable	Explanation	Scale	Reference
Familiarity with the product	Independent	How familiar are you with the product?	5-point scale with 1 being "extremely familiar" and 5 being "extremely unfamiliar"	(Alba & Hutchinson, 1987)
Emotional Response	Dependent	How do you feel about the product advertised?	5-point scale Love Happy Calm Annoyed Hate	(Crites, Fabrigar & Petty, 1994)
Cognitive Response	Dependent	What do you think about the product?	5-point scale Useful Beneficial Valuable Worthless Useless	(Crites, Fabrigar & Petty, 1994)
Preference of the ad	Dependent	How would you rate the ad?	5-point scale with 1 being the least favorite and 5 the most favorite	(Lutz, MacKenzie & Belch)
Attitude towards the brand	Dependent	How would you rate the brand overall?	5- point scale with 1 being the least favorite and 5 the most favorite	(Spears& Singh, 2004)
Need for Cognition	Independent	18-item Need for Cognition Scale	5-point scale with 1 being "strongly agree" and 5 being "strongly disagree"	(Cacioppo et al., 1984)

Table 2

5 Data Cleaning

Data cleaning is the procedure of filtering the incomplete questionnaires, so they can be excluded from the data analysis. Data cleaning is very important as it maintain the quality of the data. Out of the 130 questionnaires that had been responded 10 of them were incomplete so they were excluded. Hence, for this analysis 120 questionnaires were used.

5.1 Demographics

The questionnaire begins with three demographic questions and the respondents were asked to fill in their gender, age and their nationality. Demographics are not a part of the conceptual framework however they can give a better understanding of the respondents.

The mean age of the respondents was 26.8 years. The youngest responder was 18 and the oldest 43. Two of the participants didn't share their age.

Of all the participants 59.2% was female and 40% male. Also, one of the respondents didn't share his/her gender.

Finally, out of the 120 the respondents 84% was Greek and the rest 15% was from other countries. One of the respondents didn't share his/her nationality.

The table below contains information about the participants' age, gender and nationality.

	Descriptive	Frequency	Percentage
Gender	Male	48	40%
	Female	71	59.2%
Age	18-30	96	80%
	31-43	22	19%
Nationality	Greek	101	84.2%
	Other	18	15%

Table 3 Demographics

5.2 Descriptive statistics

Before diving deep into the SPSS analysis, the descriptive statistics are presented. The following table shows the descriptive statistics of the variables that can give a simple summary about the sample (Mann, 1995). The descriptive statistics measured were the mean the standard deviation and the variance. The tables below present the descriptive statistics of both advertising appeals.

	Mean	Std. Deviation	Variance
Product Familiarity	2.33	1.26	1.60
Pre-product attitude	3.56	0.85	0.73
Attitude towards advertisement	2.97	1.22	1.50
Emotional Response	3.05	0.83	0.69
Cognitive Response	3.4	1.30	1.71
Post-Product Attitude	3.20	0.96	0.92

Table 4 Descriptive statistics Emotional Based Advertisement

	Mean	Std. Deviation	Variance
Product Familiarity	2.33	1.26	1.60
Pre- Product Attitude	3.56	0.85	0.73
Attitude towards advertisement	3.55	0.98	0.97
Emotional Response	3.43	0.71	0.51
Cognitive response	3.84	0.92	0.85
Post-Product attitude	3,70	0.82	0.68

Table 5 Descriptive Statistics Cognitive Based Advertisement

5.3 Need for cognition

The last 18 questions of the survey were Need for Cognition scale, where the respondents had to respond to what extent they agree to each of the statements. Out of the 18 questions 9 have reverse score. The questions were answered on a 5-point scale:

(Very strong agreement=4, Moderate agreement =2, Neither agree nor disagree=0, Moderate disagreement=-2, Very Strong disagreement=-4)

The NFC score is the outcome of the score is each of the 18 questions. In this analysis, there were two levels of Need for Cognition: High and Low. If someone was categorized in the high or low need for cognition group was defined by the score. The mean of the respondents was 21.69 so everyone with a NFC score higher than that were included in the high NFC group and those with a lower score were included in the low NFC group.

6 Results

6.1 Paired sample test

In order to check the validity of the assumption made that advertising has an effect on people's attitude towards a product two paired sample tests were conducted.

During the paired sample tests the product attitude of consumers was measured before and after being exposed to the two different advertisements (emotional based advertisement vs argument based advertisement).

In the table below are shown the means of product attitude before and after watching an emotional based ad are different. As the means are different and the difference is statistically significant ($p=0.000 < p=0.05$) (Appendix 1) this indicates that consumers can be influenced on the way they perceive a product by an emotional based ad. However, in this case the mean after watching the ad is lower and this means that the ad had a negative effect on the consumers.

	N	Mean
Before Advertisement	120	3.56
Post Advertisement	120	3.20

Table 6 Means Before and Post Emotional Advertisement

A similar paired sample test was conducted in order to find out if there was a significant effect of the argument based ad on the product attitude. In this case the means are different and people have a slightly higher mean after being exposed to the ads. However, the difference is not significant ($p=0. > p=0.05$) (Appendix 2) which indicates that consumers are not influenced by the argument based ad.

	N	Mean
Before Advertisement	120	3.56
Post Advertisement	120	3.70

Table 7 Means Before and Post Cognitive Advertisement

6.2 Ad appeal and Response Type

The independent variables ad appeal consists of two different levels: The emotional based advertisement and the cognitive based advertisement. At this point the analysis aims to figure out if there is an effect of the independent variable on the dependent variable response type. In order to find out independent T-tests are conducted.

6.3 Ad appeal on emotional response

The table below shows the effect of the advertising appeal on emotional response. The means are different and they are statistically significant (Appendix 3) ($p=0.000 < p=0.05$). However, the mean of the emotional responses of the emotional based advertisement is lower than the mean of the cognitive based advertisement. That means that in this case cognitive based advertisement generated stronger emotional responses than the emotional based advertisement.

Based on the hypothesis of this study the emotional based ad should generate stronger emotional responses, so according to the findings the H1a has to be rejected.

Advertising Appeal and Emotional Response	N	Mean
Emotional Based Advertisement	120	3.05
Cognitive Based Advertisement	120	3.43

Table 8 Means of cognitive response on advertisement appeal

6.4 Ad appeal on Cognitive Response

The table below shows the effect of the advertising appeal on the cognitive response. The means are different and they are statistically significant (Appendix 4) ($p=0.009 < p=0.05$). In this case the mean of the cognitive responses of the cognitive based advertisement is higher than the mean of the cognitive responses of the emotional based advertisement. This indicates, cognitive

responses generated by the cognitive based ad are stronger than the cognitive responses generated by the emotional based ad.

According to the hypothesis of this study the cognitive responses should be stronger when watching a cognitive based ad than when watching an emotional based ad. Hence, based on the findings of the survey the H1b is accepted.

Advertising Appeal and Cognitive Response	N	Mean
Emotional Based Advertisement	120	3.45
Cognitive Based Advertisement	120	3.84

Table 9 Means of cognitive response on advertisement appeal

6.5 Need for Cognition

To investigate the effect of the independent variables, need for cognition and advertising appeal on the dependent variable response type, a double way ANOVA was run. The two way Anova is used in order to determine if there is an interaction between the different ad appeals (Emotional appeal vs cognitive appeal) and Need for Cognition on the type of responses (emotional vs cognitive).

6.6 Effect of NFC on product attitude (Emotional based Advertisement)

Before running the actual two way Anova, a paired sample T-test was conducted in order to figure out if there is a significant relationship between different levels of Need for Cognition and product attitude. Based on the paired sample T-test (Appendix 5) the mean of product attitude when watching an emotion based advertisement is different but effect of NFC on product attitude is not statistically significant ($p=0.080 > p=0.05$). That indicates that Need for Cognition doesn't have a significant effect on the product attitude when watching an emotional based ad.

The table below show the different means of product attitude.

	N	Mean
High NFC	54	2.83
Low NFC	54	3.16

Table 10 Effect of NFC on product attitude (Emotional based Advertisement)

6.7 Effect of NFC on product attitude (Argument based Advertisement)

Based on a similar paired sample T-test (Appendix 6) the mean of product attitude when watching an argument based advertisement is different but effect of NFC on product attitude is not statistically significant ($p=0.107 > p=0.05$). This means that NFC has no significant effect on the product attitude when watching an argument based ad.

	N	Mean
High NFC	54	3.56
Low NFC	54	3.83

Table 11 Effect of NFC on product attitude (Argument based Advertisement)

6.7 NFC on Ad appeal and Emotional Response

At this point the goal of the analysis is to find out if there is a moderating effect between independent variables advertising appeal (Emotional base advertisement vs Cognitive based advertisement) and need for cognition (High vs Low need for cognition) on each response type (Emotional response and Cognitive responses).

In order to test if there is a moderating effect of the independent variables advertising appeal and need for cognition on the dependent variable emotional response, a two-way Anova has been conducted.

The table below shows that the variables Need for Cognition ($p= 0.005 < p=0.05$) and Advertisement Appeal ($p=0.000 < p=0.05$) are significant. However, there is no moderating effect of NFC on the emotional response ($p=0.58 > p=0.05$). As a result, H2a has to be rejected.

Source	Sig.
NFC	0.005
Advertisement Appeal	0.000
NFC*Advertisement Appeal	0.587

Table 12 Two way Anova on Emotional Response

NFC	Advertisement Appeal	Mean
Low NFC	Emotional based Advertisement	3.18
	Cognitive based Advertisement	3.62
High NFC	Emotional based Advertisement	2.95
	Cognitive based Advertisement	3.28

*Table 13 NFC * Advertisement Appeal on Emotional Response*

6.9 NFC on Ad appeal and Cognitive Response

The same two way Anova has been used in order to figure out if there is a moderating effect of the need for cognition and advertising appeal on the cognitive response.

The table below shows that in this case the variables Need for Cognition ($p=0.94 > p=0.05$) is not significant whereas Advertisement Appeal ($p=0.01 < p=0.05$) is significant. Also, there is no moderating effect of NFC on the cognitive response ($p=0.98 > p=0.05$).

As a result, H2b has to be rejected.

Source	Sig.
NFC	0.94
Advertisement Appeal	0.01
NFC*Advertisement Appeal	0.98

Table 14 Two way Anova on Cognitive Response

NFC	Advertisement Appeal	Mean
Low NFC	Emotional based Advertisement	3.46
	Cognitive based Advertisement	3.84
High NFC	Emotional based Advertisement	3.45
	Cognitive based Advertisement	3.83

*Table 15 NFC * Advertisement Appeal on Cognitive Response*

7 Product Attitude and Response Type

7.1 Product attitude and Emotional Response

In order to figure out if there is a correlation between the product attitude and the emotional response a linear regression was conducted. Based on the correlation matrix (Appendix 9) that came up from the regression there is a significant correlation between brand attitude and cognitive response ($p=0.000<0.05$).

The table below shows that the regression model is significant ($p=0.000<0.05$). This means that the regression model predicts significantly the dependent variable product attitude. Based on the analysis 39,3% of the product attitude is generated by the emotional response ($R^2=0.393$).

Model	B	Sig.
(Constant)	1.130	0.000
Emotional Response	0.716	0.000

Table 16 Linear Regression of Emotional Response and Product Attitude

When only including emotional responses, the equation that can predict the product attitude is the following:

$$\text{Product Attitude} = 1.130 + 0.716 * \text{Emotional Responses}$$

7.2 Product attitude and Cognitive Response

A similar linear regression was conducted in order to figure out if there is a correlation between the product attitude and the cognitive response. Based on the correlation matrix (Appendix 9) that came up from the regression there is a significant correlation between brand attitude and cognitive response ($p=0.000<0.05$).

The table below shows that the regression model is significant ($p=0.000<0.05$). This means that the regression model predicts significantly the dependent variable product attitude. Based on the analysis 12.1% of the product attitude is generated by the cognitive response (Square=0.121).

Model	B	Sig.
(Constant)	2.443	0.000
Emotional Response	0.277	0.000

Table 17 Linear Regression of Cognitive Response and Product Attitude

When only including cognitive responses, the equation that can predict the product attitude is the following:

$$\text{Product Attitude} = 2.443 + 0.277 * \text{Cognitive Responses}$$

Based on the linear regression analysis for both the emotional and cognitive responses there is a significant correlation between Response Type and Brand attitude. This indicates that a big percentage of the product attitude is explained by the response type. According to these findings hypothesis H3a and H3b are correct as they suggest that a certain response leads to a certain product attitude. So, as predicted in the case of the emotional based ad due to a big percentage of negative responses the product attitude is lower after watching the ad than before watching the ad. On the other hand, in the case of the argument based ad, due to the big percentage of positive responses the product attitude after watching the ad is higher than before watching the ad.

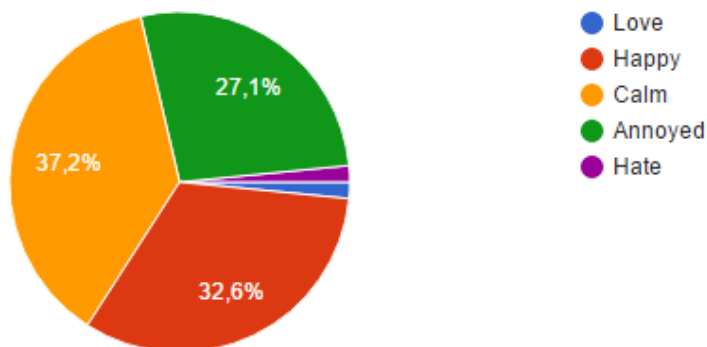


Figure 6 Emotional responses on Emotional based advertisement

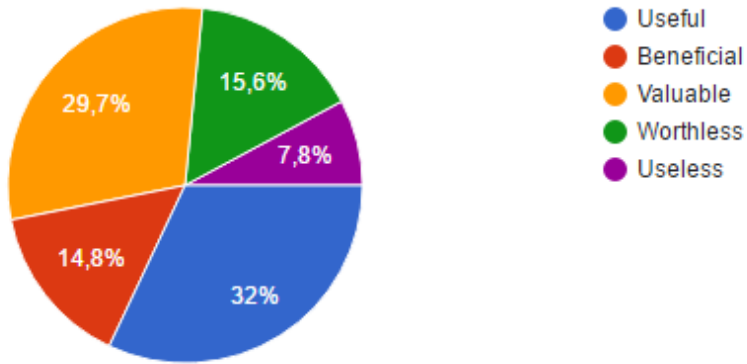


Figure 7 Cognitive Responses on Emotional based advertisement

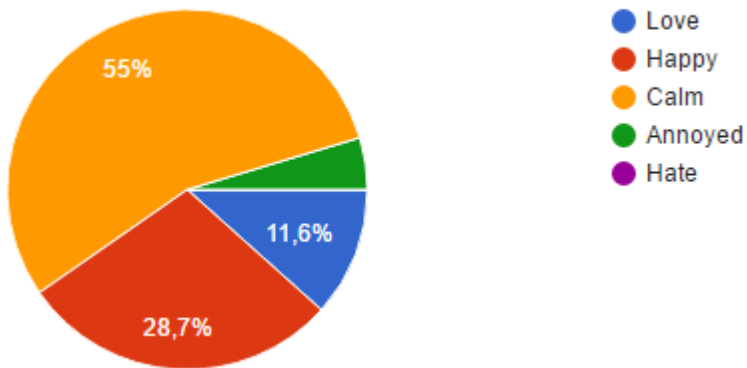


Figure 8 Emotional responses on Emotional based advertisement

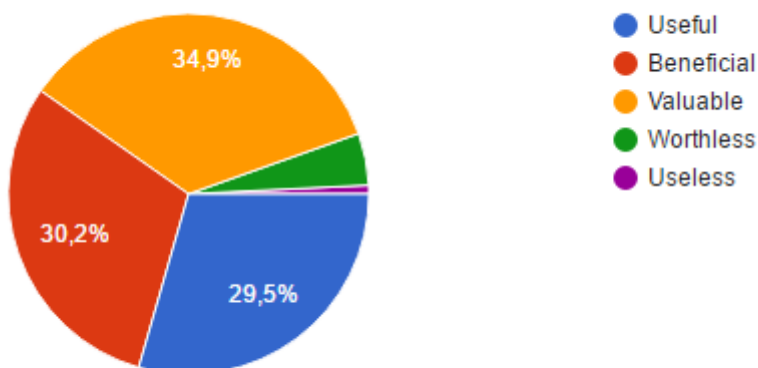


Figure 9 Cognitive responses on Argument based advertisement

7.3 Product attitude and advertisement appeal

In order to find out if there is a relationship between product attitude and advertisement appeal there was conducted an Independent T-test. Based on the results (Appendix 11) there is a significant ($p=0.000 < p=0.05$) difference in the means between the product attitude generated by emotional based ad and argument based ad.

The table below shows that the argument based ad generated a higher product attitude than the emotional based ad.

Product Attitude	Mean
Emotional based Advertisement	3.20
Argument based Advertisement	3.70

7.4 Test of mediating effect

The mediating variable is one that explains the relationship between the independent and dependent variable (MacKinnon, 2008). In this survey, the mediating variable is the response type.

If the response type has a mediating effect on the regression the effect of the independent variable becomes insignificant. So, when running a linear regression of ad appeal and brand attitude the ad appeal should be significant. When in the regression is added the variable response type the effect of response type should be significant and the effect of ad appeal becomes insignificant.

The table below shows that during the first regression of ad appeal and brand attitude the ad appeal has a significant ($p=0.000 < p=0.05$) effect in brand attitude (Appendix 12). However, when response type is added in the model the ad appeal becomes insignificant ($p=0.066 > p=0.05$) and response type is significant. Therefore, the variable response type has a mediating effect between ad appeal and brand attitude.

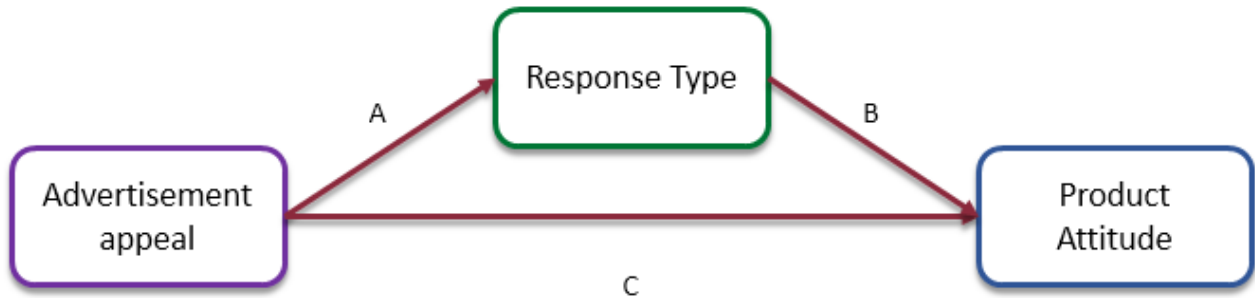


Figure 10 The Mediating Effect of Response Type

Model	Sig.
1 (Constant)	0.000
Advertisement Appeal	0.000
2 (Constant)	0.000
Advertisement Appeal	0.066
Emotional Response	0.000
Cognitive Response	0.001

Table 18 Linear Regression Mediation

8 Conclusion

8.1 Ad appeal on Response Types

Based on the hypothesis of this survey ad appeal should have a significant effect on the type of responses. In this survey ad appeal had a significant effect on the emotional and cognitive response. However, in this survey the argument based ad had a stronger effect on the emotional responses than the emotional based ad, while based on the H1a of this survey it was expected that the emotional based ad will generate more emotional responses. Therefore, H1a is rejected. Also, the argument based ad, as expected from the hypothesis of the analysis, led to stronger cognitive responses than the emotional based ad, so H1b is accepted.

According to the findings of this survey it seems that advertisement appeal can affect the intensity of responses. Argument based advertisement generates both stronger emotional and cognitive responses, whereas emotional based advertising creates less strong emotional and cognitive responses.

8.2 Need for cognition on Response Types

According to Cacioppo and Petty Need for cognition is a personality variable that explains the tendency of people to get involved to thinking the procedure. Based on that it was expected people with higher need for cognition would tend be more affected by advertisement that stimuli their mind and would have stronger cognitive responses. Whereas individuals with low need for cognition would tend to prefer more ads that don't require thinking but use emotions in order to attract consumer's attention.

However, according to this analysis although need for cognition has a significant effect ($p=0.005 < p=0.05$) on the emotional responses, there was no significant effect of need for cognition when also the ad appeal was taken into consideration. In the case of cognitive responses need for cognition had no significant effect. So H2a was rejected.

Therefore, it can be assumed, that different levels of need for cognition can have a significant effect on emotional responses. However, there is no relationship between different levels of need for cognition and different ad appeals. Hence, it cannot be said that people with high need for cognition tend to generate more cognitive responses when watching an argument based ad or that individuals with low need for cognition tend to have more emotional responses when watching an emotional based ad.

8.3 Brand Attitude

According to this investigation certain responses towards a product can lead to a certain attitude towards the products. Positive responses generate a positive product attitude and negative responses generate a negative product attitude.

In this analysis, there is a significant difference in the means of product attitude after watching the emotional based ad and the argument based ad. Product attitude is more positive when watching the argument based advertisement than when watching the emotional based advertisement. This indicated that argument based advertising can have a positive effect on the attitude towards the product.

Also, this survey suggests that there is a significant relationship between the product attitude and the type of responses. Based on the findings emotional responses explain 39.9% of the product attitude whereas the cognitive responses explain 12.1%. This indicates that a higher percentage of product attitude is generated by emotional responses. Hence, it can we said that emotional responses have a stronger effect on product attitude.

H1	H1a	<i>Emotion based advertisements will generate more affective response than cognitive appeal</i>	Rejected
	H1b	<i>Argument based advertisements will lead to more cognitive response than emotional appeal</i>	Supported
H2	H2a	<i>Individuals with lower NFC will show more favorable attitude towards an emotional-based advertisement.</i>	Rejected
	H2b	<i>Individuals with higher NFC will show more favorable attitude towards an argument- based advertisement.</i>	Rejected
H3	H3a	<i>Positive attitude towards an emotion based advertisement will lead to positive product attitude.</i>	Supported
	H3b	<i>Positive attitude towards an argument advertisement will lead to positive product attitude</i>	Supported

Table 19 Hypothesis

9 Discussion

This study aims to analyze the effects of two different type of advertising appeals (emotional orientated advertising vs cognitive orientated advertising) in relation to consumer's personality variable Need for Cognition on product attitude.

A very interesting finding of this survey is that consumers show a statistically significant ($p=0.000 < p=0.05$) different product attitude before and after being exposed to the emotional based advertisement whereas the difference in product attitude is insignificant when they are shown the cognitive based advertisement. This indicates that actually consumers get affected by advertising and that can have an impact on their attitude towards a product. In this case the emotional based ad generated negative product attitude. Responders before seeing the emotional based ad valued the product with 3.56 whereas after seeing the ad valued the product with 3.20.

The most logical assumption (and based on participants' feedback) is that the ad was not likable to consumers and couldn't spread its message. According to the participants' feedback they felt annoyed by the ad and sometimes even sad. They tend to relate to the couple and didn't like the concept of making a couple argue for material goods.

9.1 Application

In general, according to this survey cognitive based ads can have a more positive effect on the product attitude. Nevertheless, it doesn't seem that they have the power to affect significantly consumers' attitude. On the other hand, emotional based ads can change significantly an attitude towards a product and in this specific case the change is negative.

As a result, it can be assumed that cognitive based ads are more likable and can be a more 'safe' way of advertising. Whereas, emotional based ads should be very well-designed in order to generate a positive change towards a product and not bring contra productive results.

9.2 Limitations and Future Research

It is very difficult for researchers to collect trustworthy and quality data, although creating a survey may seem easy. In many cases participants don't want to share honestly personal data. In other cases, participants fail to reply properly in the survey as they cannot express their thoughts and feelings through a 5-point scale. In this survey, the biggest limitation was that participants couldn't be certain about the statements' content during the NFC scale questions. Also, due to the nature of the survey (within-subject design) there is the possibility that respondents could be biased when watching the second advertisement, as they have already seen the first advertisement. Therefore, their response wouldn't be what exactly they think or feel about this advertisement but It can be affected about what they thought and felt about the first advertisement.

While, the hypothesized of this survey aren't accepted totally this survey gives some important information on the role of advertising appeal in the consumer learning procedure. Probably future surveys could use different themes in the advertisements surveys and could give a different insight in the role of Need for Cognition and personality in advertising. The fact that a big number of the participants had negative feelings about the emotion based ad could have led people with low NFC in the decision to evaluate higher the argument based ad, although in a different case that both ads would have been equally likable they would have been influenced by the emotion based one.

10 References

Aaker D., Biel A. (1993). *Brand Equity & Advertising: Advertising's Role in Building Strong Brands (Advertising and Consumer Psychology) (Advertising & Consumer Psychology)*.

Aaker D., Stayman D., Hagerty M. (1986). Warmth in advertising: measurement, impact and sequence effects. *Journal of Consumer Research*; 12:365 – 81 (March).

Batkoska L., Koseska E. (2012). The Impact of Cognitive Learning on Consumer Behaviour. *Procedia - Social and Behavioral Sciences*.

Brinton, A. (1988). Pathos and the “Appeal to Emotion”: An Aristotelian Analysis. *History of Philosophy Quarterly*, 5(3), 207–219.

Chandy, R. K., Tellis, G. J., Macinnis, D. J., & Thaivanich, P. (2001) What to say when: Advertising appeals in evolving markets. *Journal of Marketing Research*, 39.399-414.

Churchill, G. A., & Peter, J. P. (1998). *Marketing: Creating value for customers*. Boston: Irwin/McGraw Hill.

Cohen, A. R., Stotland, E., & Wolfe, D. M. (1955). An experimental investigation of need for cognition. *The Journal of Abnormal and Social Psychology*, 51(2), 291-294.

Dole, J.A., Sinatra, G.M. (1998). “Reconceptualizing Change in the Cognitive Construction of Knowledge”. *Educational Psychologist*.

Gardner, M. P. (1985). Does Attitude toward the Ad Affect Brand Attitude under a Brand Evaluation Set? *Journal of Marketing Research*, 22(2), 192.

Haugtvedt, C. P., Petty, R. E., & Cacioppo, J. T. (1992). Need for Cognition and Advertising. *Journal of Consumer Psychology*, 1(3), 239-260.

Hawkins, D. I., Best, R. J., & Coney, K. A. (2003). *Consumer behavior: Building marketing strategy*. Maidenhead: McGraw-Hill Education.

Holbrook, M. B. and O'Shaughnessy, J. (1984), The role of emotion in advertising. *Psychol. Mark.*, 1: 45–64.

Kruglanski, Arie W.; Van Lange, Paul A.M. (2012). Handbook of theories of social psychology. London, England: Sage. pp. 224–245.

Kunda, Ziva (1990). "The Case for Motivated Reasoning". *Psychological Bulletin* 108 (3): 480–498.

Larsen R., Diener J. (1987). Affect intensity as an individual difference characteristic: a review. *Journal of Research in Personality*; 21:1 – 39.

MacKinnon, D. P. (2008). Introduction to statistical mediation analysis. New York: Routledge.

Mann. P.S. (1995). Student Solutions manual to accompany Introductory statistics, second edition, Prem S. Mann. New York: Wiley.

Petty, R. E., Briñol, P., Loersch, C., & McCaslin, M. J. (2009). The need for cognition. *Handbook of individual differences in social behavior*, 318-329.

Petty R., Cacioppo J. (1986). "Communication and persuasion: central and peripheral routes to attitude change."

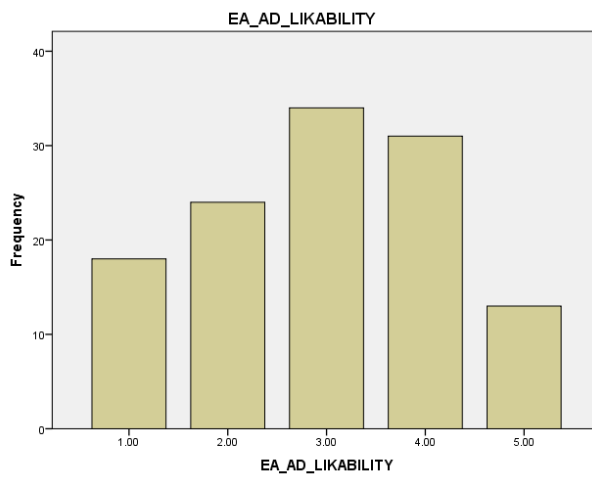
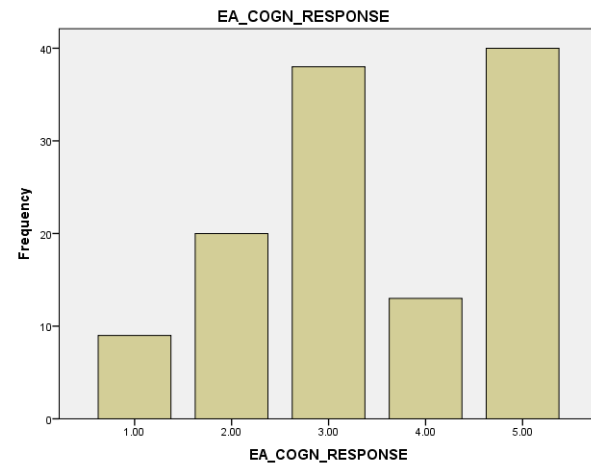
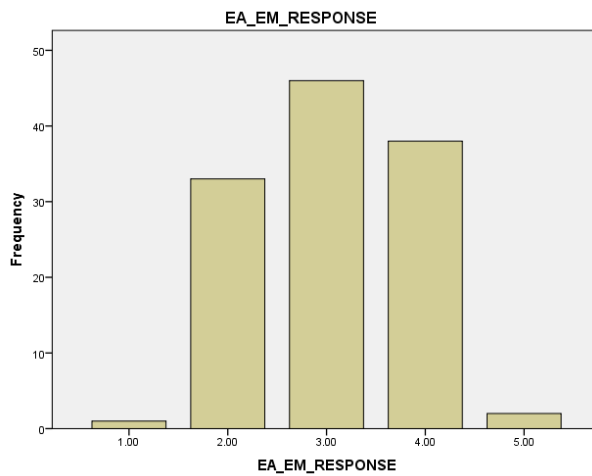
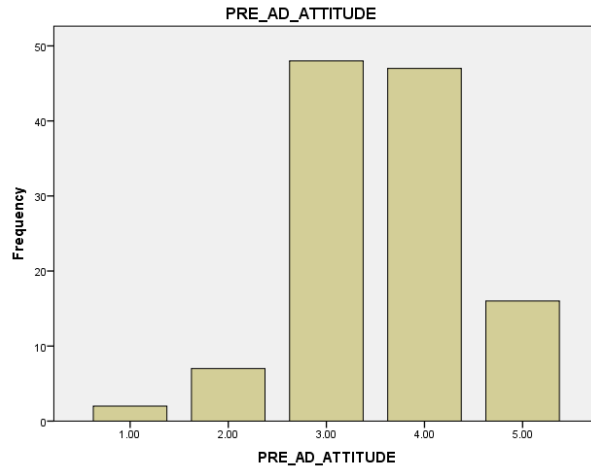
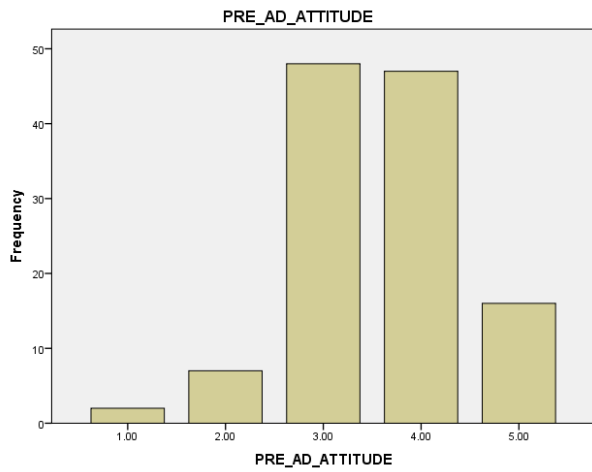
Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983). Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *Journal of consumer research*, 10(2), 135-146.

Ruiz de Maya S., Sicilia M. (February 2004). The impact of cognitive and/or affective processing styles on consumer response to advertising appeals. *Journal of Business Research*.

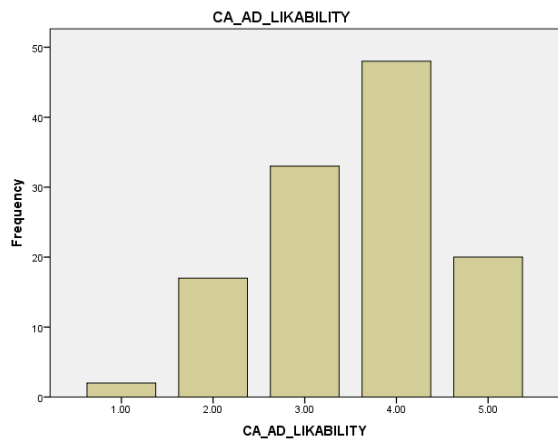
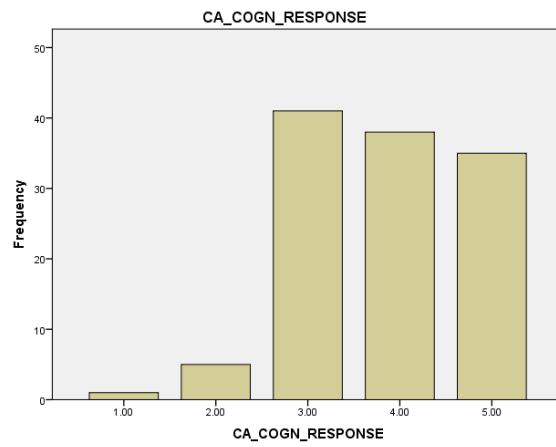
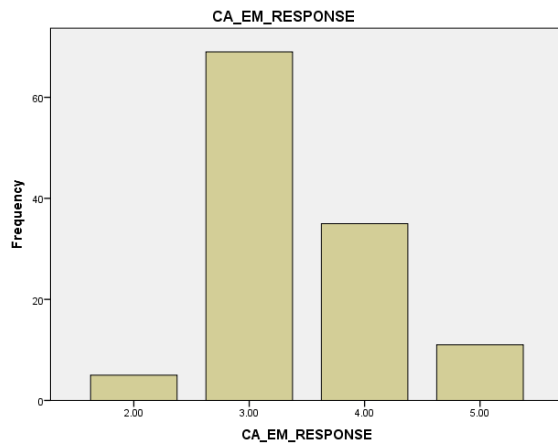
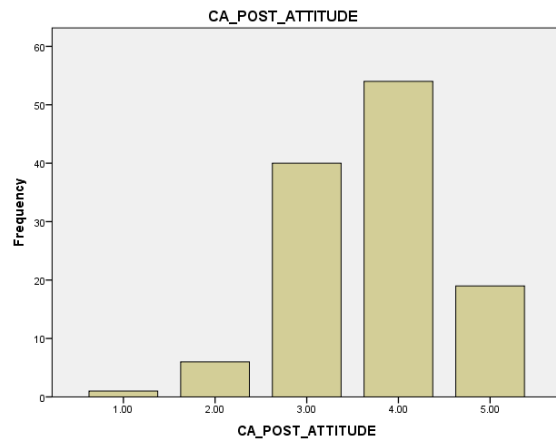
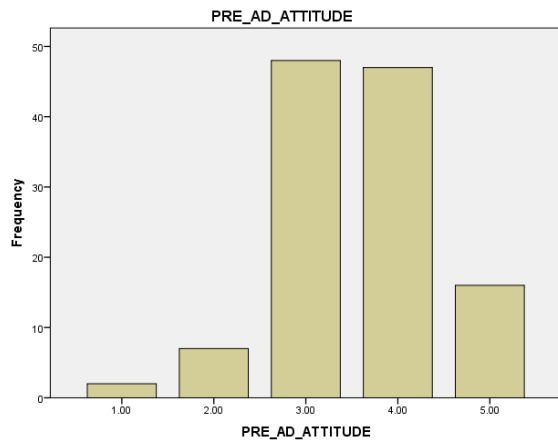
Wright P. (February 1973). The Cognitive Processes Mediating Acceptance of Advertising. *Journal of Marketing Research*, 10(1), 53-62.

11 Appendix I

Descriptive Statistics-Emotional Based Advertisement



Descriptive Statistics- Argument Based Advertisement



12 Appendix II

Appendix 1

Paired Sample T-test Product attitude before and Post Emotion based Ad

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	PA_Before - PA_Post_EA	.35833	.87731	.08009	.19975	.51691	4.474	119	.000

Appendix 2

Paired Sample T-test Product attitude before and Post Cognitive based Ad

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	PA_Before - PA_Post_CA	-.13333	.97819	.08930	-.31015	.04348	-1.493	119	.138

Appendix 3

Independent Sample T-test Emotional Response on Emotion based Advertisement and Cognitive based Advertisement

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
emotional_response	Equal variances assumed	.585	.445	3.734	238	.000	.37500	.10044	.17714	.57286
	Equal variances not assumed			3.734	232.990	.000	.37500	.10044	.17711	.57289

Appendix 4

Independent Sample T-test Cognitive Response on Emotion based Advertisement and Cognitive based Advertisement

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
cognitive_response	Equal variances assumed	25.551	.000	2.620	238	.009	.38333	.14633	.09506	.67161
	Equal variances not assumed			2.620	214.254	.009	.38333	.14633	.09490	.67177

Appendix 5

Paired Sample test Product attitude and NFC in Emotion based Ad

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	EA_High_NFC - EA_Low_NFC	-.33333	1.37361	.18692	-.70826	.04159	-1.783	53	.080

Appendix 6

Paired Sample test Product attitude and NFC in Argument based Ad

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	CA_High_NFC - CA_Low_NFC	-.24074	1.08045	.14703	-.53565	.05416	-1.637	53	.107

Appendix 7

Two way Anova: Effect of Advertising Appeal and NFC on Emotional Response

Between-Subjects Factors

	Value Label	N	
NFC	.00	Low NFC	107
	1.00	High NFC	133
Ad_Appeal	.00	emotional ad	120
	1.00	cognitive ad	120

Descriptive Statistics

Dependent Variable: ER_Anova

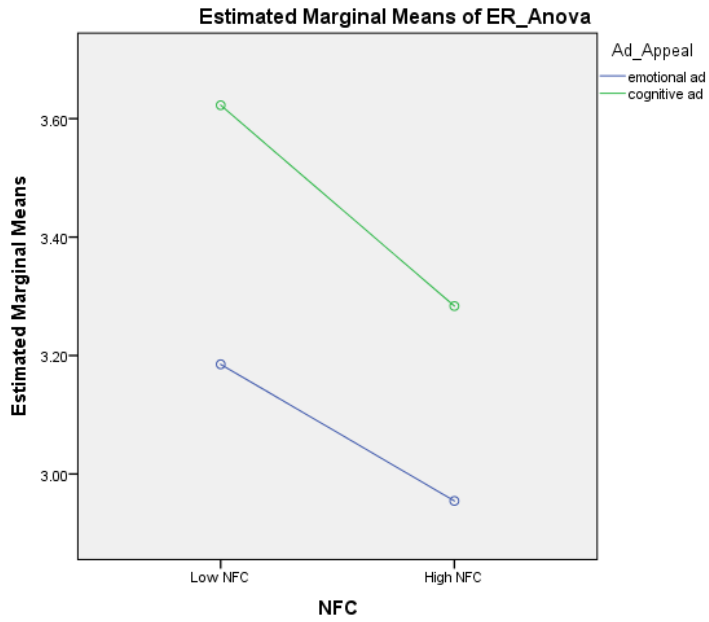
NFC	Ad_Appeal	Mean	Std. Deviation	N
Low NFC	emotional ad	3.1852	.82586	54
	cognitive ad	3.6226	.83727	53
	Total	3.4019	.85627	107
High NFC	emotional ad	2.9545	.83079	66
	cognitive ad	3.2836	.57224	67
	Total	3.1203	.72861	133
Total	emotional ad	3.0583	.83310	120
	cognitive ad	3.4333	.71870	120
	Total	3.2458	.79879	240

Tests of Between-Subjects Effects

Dependent Variable: ER_Anova

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	13.419 ^a	3	4.473	7.590	.000
Intercept	2522.806	1	2522.806	4280.968	.000
NFC	4.811	1	4.811	8.164	.005
Ad_Appeal	8.709	1	8.709	14.778	.000
NFC * Ad_Appeal	.174	1	.174	.296	.587
Error	139.077	236	.589		
Total	2681.000	240			
Corrected Total	152.496	239			

a. R Squared = .088 (Adjusted R Squared = .076)



Appendix 8

Two way Anova: Effect of Advertising Appeal and NFC on Cognitive Response

Between-Subjects Factors

		Value Label	N
NFC	.00	Low NFC	107
	1.00	High NFC	133
Ad_Appeal	.00	emotional ad	120
	1.00	cognitive ad	120

Descriptive Statistics

Dependent Variable: CR_Anova

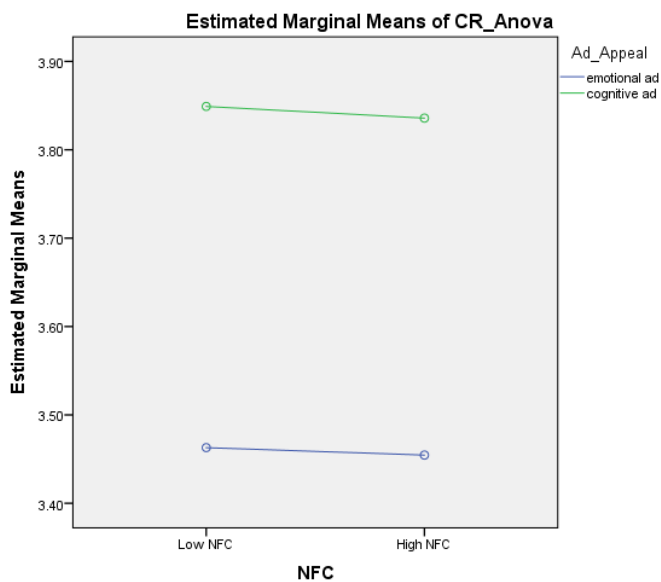
NFC	Ad_Appeal	Mean	Std. Deviation	N
Low NFC	emotional ad	3.4630	1.29895	54
	cognitive ad	3.8491	.81798	53
	Total	3.6542	1.09977	107
High NFC	emotional ad	3.4545	1.32644	66
	cognitive ad	3.8358	1.00901	67
	Total	3.6466	1.18830	133
Total	emotional ad	3.4583	1.30864	120
	cognitive ad	3.8417	.92578	120
	Total	3.6500	1.14731	240

Tests of Between-Subjects Effects

Dependent Variable: CR_Anova

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8.824 ^a	3	2.941	2.270	.081
Intercept	3160.675	1	3160.675	2439.430	.000
NFC	.007	1	.007	.005	.942
Ad_Appeal	8.729	1	8.729	6.737	.010
NFC * Ad_Appeal	.000	1	.000	.000	.987
Error	305.776	236	1.296		
Total	3512.000	240			
Corrected Total	314.600	239			

a. R Squared = .028 (Adjusted R Squared = .016)



Advertisement Appeal and Product Attitude

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Product_Atitude	Equal variances assumed	1.345	.247	4.251	238	.000	.49167	.11565	.26384	.71949
	Equal variances not assumed			4.251	232.783	.000	.49167	.11565	.26381	.71952

Appendix 9

Linear Regression Product Attitude and Emotional Response

Descriptive Statistics

	Mean	Std. Deviation	N
Product_Atitude	3.4542	.92726	240
ER_Linear	3.2458	.79879	240

Correlations

		Product_Atitude	ER_Linear
Pearson Correlation	Product_Atitude	1.000	.617
	ER_Linear	.617	1.000
Sig. (1-tailed)	Product_Atitude	.	.000
	ER_Linear	.000	.
N	Product_Atitude	240	240
	ER_Linear	240	240

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.617 ^a	.381	.378	.73133

a. Predictors: (Constant), ER_Linear

b. Dependent Variable: Product_Atitude

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	78.202	1	78.202	146.215	.000 ^b
	Residual	127.293	238	.535		
	Total	205.496	239			

a. Dependent Variable: Product_Atitude

b. Predictors: (Constant), ER_Linear

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.130	.198		5.708	.000	.740	1.520
	ER_Linear	.716	.059	.617	12.092	.000	.599	.833

a. Dependent Variable: Product_Atitude

Appendix 10

Linear Regression Product Attitude and Cognitive Response

Descriptive Statistics

	Mean	Std. Deviation	N
Product_Atitude	3.4542	.92726	240
CR_Linear	3.6500	1.14731	240

Correlations

		Product_Atitude	CR_Linear
Pearson Correlation	Product_Atitude	1.000	.343
	CR_Linear	.343	1.000
Sig. (1-tailed)	Product_Atitude	.	.000
	CR_Linear	.000	.
N	Product_Atitude	240	240
	CR_Linear	240	240

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.343 ^a	.117	.114	.87292

a. Predictors: (Constant), CR_Linear

b. Dependent Variable: Product_Atitude

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.142	1	24.142	31.683	.000 ^b
	Residual	181.354	238	.762		
	Total	205.496	239			

a. Dependent Variable: Product_Atitude

b. Predictors: (Constant), CR_Linear

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.443	.188		12.977	.000	2.072	2.814
	CR_Linear	.277	.049	.343	5.629	.000	.180	.374

a. Dependent Variable: Product_Atitude

Appendix 11

Product Attitude and Advertising Appeal

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Product_Atitude	Equal variances assumed	1.345	.247	4.251	238	.000	.49167	.11565	.26384	.71949
	Equal variances not assumed			4.251	232.783	.000	.49167	.11565	.26381	.71952

Appendix 12

Linear Regression Total

Descriptive Statistics

	Mean	Std. Deviation	N
Product_Atitude	3.4542	.92726	240
Ad_Appeal	.5000	.50104	240
CR_Linear	3.6500	1.14731	240
ER_Linear	3.2458	.79879	240

Correlations

		Product_Atitude	Ad_Appeal	CR_Linear	ER_Linear
Pearson Correlation	Product_Atitude	1.000	.266	.343	.617
	Ad_Appeal	.266	1.000	.167	.235
	CR_Linear	.343	.167	1.000	.286
	ER_Linear	.617	.235	.286	1.000
Sig. (1-tailed)	Product_Atitude	.	.000	.000	.000
	Ad_Appeal	.000	.	.005	.000
	CR_Linear	.000	.005	.	.000
	ER_Linear	.000	.000	.000	.
N	Product_Atitude	240	240	240	240
	Ad_Appeal	240	240	240	240
	CR_Linear	240	240	240	240
	ER_Linear	240	240	240	240

Model Summary^c

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.266 ^a	.071	.067	.89582
2	.650 ^b	.422	.415	.70948

a. Predictors: (Constant), Ad_Appeal

b. Predictors: (Constant), Ad_Appeal, CR_Linear, ER_Linear

c. Dependent Variable: Product_Atitude

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.504	1	14.504	18.074	.000 ^b
	Residual	190.992	238	.802		
	Total	205.496	239			
2	Regression	86.702	3	28.901	57.415	.000 ^c
	Residual	118.794	236	.503		
	Total	205.496	239			

a. Dependent Variable: Product_Atitude

b. Predictors: (Constant), Ad_Appeal

c. Predictors: (Constant), Ad_Appeal, CR_Linear, ER_Linear

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3.208	.082		39.233	.000	3.047	3.369
	Ad_Appeal	.492	.116	.266	4.251	.000	.264	.719
2	(Constant)	.809	.215		3.759	.000	.385	1.233
	Ad_Appeal	.203	.095	.110	2.142	.033	.016	.390
	CR_Linear	.137	.042	.169	3.256	.001	.054	.219
	ER_Linear	.630	.061	.543	10.299	.000	.509	.751

a. Dependent Variable: Product_Atitude